

a continuous chemical grade lithium carbonate crystal feeder;

an inline filter to remove insoluble impurities from the lithium bicarbonate solution coming from the stilling well;

a heat exchanger to recover heat from the hot mother liquor that is recycled to the dissolver;

a heated gas sealed crystallizer with mixer to decompose the lithium bicarbonate solution to form low sodium lithium carbonate crystals, carbon dioxide gas, and mother liquor;

a slurry valve to remove the low sodium lithium carbonate crystals and mother liquor from the gas sealed crystallizer;

a gas line to continuously return the carbon dioxide produced in the crystallizer to the dissolver;

a separator such as a continuous belt filter to separate the low sodium lithium carbonate from the mother liquor and a wash water section to wash the lithium carbonate crystals;

²
A a pump and line to return the mother liquor and wash filtrate to the dissolver;

a mother liquor bleed to control the sodium level and to maintain a constant liquid volume;

a carbon dioxide make up source.

7. The apparatus of Claim 6, comprising a reactor using absorption columns, such as a sieve tray or a Scheibel column, to facilitate absorption of carbon dioxide.

REMARKS

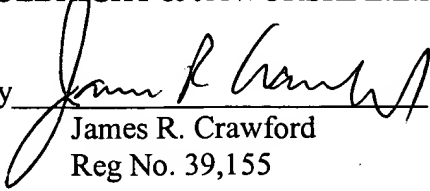
Please enter this amendment prior to examination on the merits.

Applicants believe no other fees are required. However, the Commissioner is hereby authorized to deduct any fee due, or credit any overpayment to Deposit Account No. 50-0624. Prompt and favorable action on the merits is earnestly solicited.

Respectfully submitted,

FULBRIGHT & JAWORSKI L.L.P.

By


James R. Crawford
Reg No. 39,155

666 Fifth Avenue
New York, New York 10103